THE BOSTON
MEDICAL AND SURGICAL JOURNAL.

VOL. XCV. — THURSDAY, JULY 6, 1876. — NO. I.

A CASE OF PROGRESSIVE PERNICIOUS ANÆMIA.

BY E. H. BRADFORD, M. D.

THE patient was a girl aged eleven, of well-built frame; she is said by her relatives to have been hitherto remarkably healthy, with a bright, florid complexion. The dwelling-house had a much better exposure to sunlight than is usually found among the poorer classes in large cities. There had been no lack of good food. The other members of the family bore all the appearances of health. About the middle of March the parents noticed that the girl's appetite began to fail. She gradually lost strength and color. On May 1st, when the patient was first seen, there was extreme pallor. The prolabia and fauces were almost cream-colored. There was no emaciation. Patient was extremely weak, and fainted on the slightest exertion, perhaps a dozen or twenty times during the day. Complained of shifting pains, particularly in calves of legs. Appetite capricious, bowels regular, epistaxis frequent, slight hæmorrhages from gums, a profuse bloody expectoration. There was a slight cough and an extremely disagreeable odor from the mouth. Slight puffiness at angles of jaws.

The physical examination of chest gave no abnormal signs, with the exception of a loud murmur with the first sound of the heart, loudest at left base, quite faint at apex; the murmur was propagated into the carotids. There was no enlargement of the heart nor accentuation of the second pulmonic sound. Neither spleen nor glands were enlarged. Pulse 120, respiration 36, temperature 101½°.

The blood was examined with great care by Dr. Cutler and myself, the *Compte-globule* of Malassez being used. The result was as follows: number of red globules to the cubic millimetre of blood, 714,145; number of white globules, 2911.[1]

Dr. Cutler was kind enough to report in regard to the condition of the corpuscles in the specimens examined by him as follows: "The red globules were paler than normal. The bi-concave contour was not preserved. There was not much variation in size between the indi-

[1] The number of red globules in health in an adult male is 4,500,000 to the cubic millimetre. The number of the white varies greatly; 5000 may be considered the average in health.

vidual globules. All were rather smaller than usual. There was not much detritus." A similar condition was found in the specimens examined by me. The white globules seemed abnormally granular, and were irregular in shape.

Examination of the urine showed nothing abnormal. No impairment of vision. Eyes not examined with ophthalmoscope.

Patient's condition remained the same for a fortnight. Bloody expectoration continued with little change, perhaps three ounces being expectorated during the twenty-four hours.

After May 14th, the following notes were taken: —

May 14th. Pulse 108, temperature $100\frac{2}{5}°$. Two subcutaneous ecchymotic spots over tibia, as large as tip of finger.

May 16th. Puffiness at angle of jaw has disappeared; no œdema nor ascites.

May 17th. Much weaker, temperature 100°, refused all nourishment.

May 18th. Complained of severe pain in ear, and in abdomen; temperature 101°, pulse 122.

May 19th. Temperature $99\frac{4}{5}°$. Refuses her food. Complains of severe abdominal pains. Restless during night, drowsy during day. Patient rarely speaks, but is conscious.

May 22d. Patient much excited during a violent thunder-storm. Had severe attacks of pain referred to different parts of body. There was a copious discharge of blood from mouth, said to have been a pint; Patient craves for different sorts of food, but rejects everything after the first mouthful, or vomits.

May 23d. Moves right arm and leg less easily than left; slight œdema at angles of jaws.

May 24th. Temperature 101°, pulse 120; right arm flexed and firmly contracted, right leg motionless. No loss of sensation, however. The "black and blue" spots on leg much larger. No emaciation. A slightly dusky tinge to face, some convulsive movements, no change in pupils. Patient unconscious.

May 25th. Died. No autopsy.

The treatment throughout, besides as stimulating diet as patient would bear, consisted in the administration of iron in some form. Tr. ferri chloridi, ferrum redactum, syr. ferri iodidi, were successively given and were all taken well by patient until the last few days. Fowler's solution was substituted for the iron two days before death, but was not, however, thoroughly tried. Quinine in one-grain doses was given. The only effect which could be fairly attributed to the iron was a blackening of the stools, as no improvement in the patient's condition occurred.

In the diagnosis of this case, phthisis is naturally suggested by the hæmoptysis and the fever. As, however, beside the spitting of blood

there was epistaxis and bleeding from the gums, indicating a hæmorrhagic state, as no abnormal physical signs were to be found in the lungs throughout the sickness, and as there was no emaciation or night sweats, a diagnosis of phthisis is not tenable. Much of the blood seemed to be hawked up, as if coming from the fauces or posterior nares.

The absence of enlargement of the spleen or glands would not exclude leucocythæmia. The course of the disease was, however, much more rapid than leucocythæmia ever is. Fever does not occur constantly in leucocythæmia, and, finally, examination of the blood proved a diminution of the white globules not to be seen in leucocythæmia.[1]

Progressive pernicious anæmia, a term first used by Gusserow and Biermer, and since generally adopted, is applied to a condition of "extreme anæmia terminating fatally in spite of the most nourishing treatment, for which no cause can be found (capable of explaining the malignity) either in the surroundings or physical condition of the patient."[2]

The disease is not a new one. Marshall Hall[3] described in 1839 a case of "fatal chlorosis," and Addison's[4] description of "idiopathic anæmia" makes it evident that the disease is the same as that described by Gusserow, Pepper, and others. Trousseau's case of "febris alba virginum,"[5] is probably identical.

An Italian, Corrazza, reported[6] a case of oligæmia, probably a case of pernicious anæmia. Gusserow, Biermer, Immermann, Zenker, King, Pepper, Phillips, and others have reported cases within the last few years. A case reported in the JOURNAL for January 14, 1875, by Dr. Chadwick, would seem to be a case of pernicious anæmia.

The affection is more common in women than in men; two of Pepper's cases were, however, adult males. It is more frequent after puberty, from the eighteenth to the fifty-seventh years; Quincke, however, reports a case at eleven years. Pregnancy is undoubtedly a predisposing condition.[7] The beginning of the disease is always gradual; characteristic of its course are absence of emaciation, extreme weakness, slight œdema or dropsy, which, however, according to Pepper, may be transitory. In a majority of cases hæmorrhages occur, either from the nose, gums, vagina, or uterus.

Capillary hæmorrhages in the retina always occur, according to Quincke, and capillary extravasations in the skin are common. Extremely loud anæmic murmurs are usual; the heart is sometimes slightly

[1] Uhle and Wagner.
[2] Ziemssen's Cyclopædia, Immermann, Progressive Pernicious Anæmia.
[3] Hall, Practice of Medicine, American Edition, 1839, page 369.
[4] Syd. Soc. Ed. of Addison's works, page 212.
[5] Clin. Med., iii. 70.
[6] Schmidt's Jahrbuch, 1872, Bd. 155, s. 333.
[7] Gusserow.

enlarged, but no valvular lesions occur. The urine is generally normal; albumen has, however, been observed in a few cases. An irregular fever is frequent. A temperature as high as 104° has been recorded,[1] there being no assignable cause. Usually, however, the temperature does not rise above 102°, and it may fall slightly below normal. (One of Quincke's cases.)

The prognosis is necessarily grave. Two recoveries are reported by De Cérenville.[2] Quincke reports two recoveries; one of these, however, died six months later with similar symptoms, and the diagnosis in the other case would appear doubtful from the report.

In regard to the pathology, a summary of recent observations can be found in the JOURNAL, October 22, 1874 (Dr. Fitz, Report on Pathology and Pathological Anatomy). Some later observers regard the fatty degeneration of the heart mentioned by Gusserow as a result and not a cause of the patient's condition.

Pepper considered the disease a medullary form of the pseudo-leukæmia (Hodgkin's disease, Trousseau's "adénie"), and found in one case change in the medulla of the tibia. This, however, does not seem to be constant, and is not reported in Pepper's second case.

Little can be said in regard to treatment. Transfusion has been tried in several cases, but without any marked benefit. Iron is not always well borne, and seems to be of little use. Cod-liver oil, iodine, arsenic, and phosphorus are all recommended, but from the reported cases little can be expected from their employment.

LITERATURE. — Pepper, American Journal of the Medical Sciences, October, 1875; Immermann, Ziemssen's Handbuch, xiii. 615; Quincke, Volkmann's Samml. klinische Vorträge, No. 100; King, British Medical Journal, 1871; Gusserow, Archiv für Gynaekologie, ii., 1871, 218; Biermer, Correspondenzblatt für Schweizer Aerzte, ii., 1872, No. 1; Zenker, Deutsches Archiv für klinische Medicin, iii., 1874, 348; Gfhörer, Memorabilien, xix. 3, page 116, 1874, Ponfick, Berliner klinische Wochenschrift, 1873, No. 1; Perl, Virchow's Archiv, Bd. 59; Perroud, Lyon Médicale, 1869; Cérenville, Bulletin de la Société de la Suisse, Rom., Mai., 1875, page 138; Phillips, Guy's Hospital Reports, third series, xviii. 159, 1873.

CASE OF RUPTURE OF THE SYMPHYSIS PUBIS DURING LABOR.

BY Z. B. ADAMS, M. D., OF FRAMINGHAM.

MRS. B., patient of Dr. H. Cowles, of Saxonville, forty-two years of age, primipara, medium height, well formed, spare, weight one hundred and ten pounds, arrived at full term of pregnancy on the morning of February 4, 1876. She had enjoyed fair health during gestation, although suffering from œdema of hands, feet, and legs for the last few weeks.

[1] Pepper.

[2] I have been unable to find the reports of these cases.

At this date there was a gush of liquor amnii, without pain or other warning. Seen by Dr. Cowles, the os was found undilated, parts soft and natural, no pains nor other signs of labor.

Twenty-four hours after (four A. M., February 5th), pains began. An examination showed a rigid os uteri, admitting the end of the finger. Micturition frequent. Pains moderate, not achieving much. Vertex presenting. Bowels moved during forenoon.

At 1.30 P. M. "pains more severe. Os one and one half inches in diameter, rigid. No advance of head. Vagina moist. Woman's condition good." Dr. Cowles gave antimony tartrate to emesis; also placed her over a vessel of hot water. At three P. M., "no advance of head. Os dilated to two inches, rigid. Pains somewhat severe, but achieving nothing."

I was called in consultation at 4.30 P. M. Found the condition as above described by Dr. Cowles's notes. Head high up, not movable. Vertex presenting, the occiput to the right acetabulum. Vagina moist. Os uteri two to two and a half inches, rather rigid. Pains ineffectual, not very severe, recurring every five to eight minutes. Patient's strength and condition good.

Advised the use of antimony tartrate per anum, and the application of forceps when the os should become more dilatable. After a time, the conditions appearing favorable, the pains expulsive in character, and the os dilating and dilatable, I applied the forceps under ether, taking the precaution to first empty the bladder. The forceps (Simpson's long) were with some difficulty adjusted obliquely upon the child's head, one blade behind the right ear, the other before the left ear, following Simpson's directions. During two hours thereafter, although the pains were regular, no progress was made, it being out of the question to employ any tractile force by reason of the condition of the os uteri, which, at each pain, clasped the shanks of the forceps as with a tight cord. The forceps were loosened between the pains, the locks being very carefully examined and adjusted at the commencement of each pain, when the grasp was tightened. The head, inclosed in the os and cervix uteri, was engaged in the brim. The child was alive, and the conjugate diameter of the pelvis seemed sufficient to allow the passage of the head if the os were dilated. Soon after six o'clock the ether was stopped, and it was not given again.

The forceps having been about two hours in place, at the commencement of a pain, the locks being adjusted, I requested Dr. Cowles to take the handles, that I might examine the parts at leisure, and assure myself that no injurious pressure was made upon the os uteri. A very severe expulsive pain coming on at this time, traction was made by Dr. Cowles in a backward-downward direction, when something gave way with a sharp crack, a noise sufficiently loud to be heard by all

in the room. Fearing rupture of the uterus, I looked at the woman. The countenance was good. No signs of collapse, no cramp, nor faintness. The os was rapidly dilating, labor going on, the head advancing at once, and pains continuing. A drachm of wine of ergot was given her, and a living child was born in about twenty minutes, with little help from the forceps, which were allowed to remain without change because the labor was progressing so well. During the short time that the head was in the pelvis there was some pain in the pubic region.

The placenta soon came away without unusual hæmorrhage or difficulty. The child, a boy, weighed eight pounds.

Immediately on the conclusion of the labor a full dose of ergot and opium was given. The pulse remained rapid through the night.

Next day she complained of soreness over pubes, but no pain except on motion. Passed water eighteen hours after the accident. Parts so swollen and tender that no examination was attempted. Opium was given. Incontinence of urine then began, and there was thirst and rapid pulse, but no symptoms of metritis or peritonitis at any time.

Four weeks after the accident, examined under ether, complete separation of the symphysis was found ; a space of two inches between the ragged edge of the bone upon the right side and the torn ligament and fibro-cartilage of the left, with laceration of the anterior wall of the bladder, and rent into the vestibule. The urethra, entire, was very large, admitting one finger readily. This and the rent in the upper angle of the vestibule made it easy to thoroughly examine all parts of the bladder and symphysis. The posterior wall, fundus, and base of the bladder were uninjured. Vagina everywhere whole, although its rectal surface showed irritation from dribbling urine. The os uteri, rather high up, was healthy in feeling, and the sound passed into the fundus uteri two and one half to three inches without the slightest difficulty or appearance of uneasiness. The brim of the pelvis and the promontory of the sacrum, carefully examined, showed nothing abnormal. The unnatural condition of the bony parts made any measurement of diameters uncertain.

The experienced accoucheur may claim that the forceps should never be applied before the os uteri is fully dilated. Granted that this was wrong, it is difficult to explain what connection, if any, this could have with the occurrence of the accident. It is certain that the forceps never slipped, and that their situation upon the head, and their bearing upon the pelvic bones and soft parts of the mother, were repeatedly and carefully examined. Their place was never changed, nor any attempt made to alter it. They did not break, nor twist, and were withdrawn only with the child's head inclosed between the blades at the conclusion of the labor. No change was attempted, because it seemed impossible to improve upon their adjustment. An examination of the

child's head after birth, and recalling the position of the head in the brim at the time the instruments were introduced, showed that they were rightly placed. There is not a particle of evidence to show that any of the soft parts upon which they rested or impinged at any time were in the smallest degree contused, lacerated, or injured in function. The laceration of the bladder was confined to its anterior wall, and must have been made by the ragged edge of the bony symphysis, perhaps during the passage of the head. I am further assured by Dr. Cowles, who was holding the forceps at the instant when the rupture occurred, that he did not employ an unusual amount of force. The same is my own impression, confirmed by an examination of the forceps-marks upon the child's head, these marks being slight for instruments which had been kept two hours in place without change. There could have been no twisting or displacement of the instruments unperceived by me, as I was at the moment feeling with my finger around the shanks of the forceps, to determine the condition of the os uteri.

Rare as is this accident, and improbable as its occurrence appears (it is even declared by a very high authority to be *impossible*), we can hardly escape the conviction in this case that rupture of the symphysis pubis occurred during labor from pressure of the fœtal head, whether this pressure was due to the expulsive efforts of the womb, to traction by forceps, or to the mechanism of both these forces combined. It is possible that some exostosis, or some abnormal development, or some disease of the bones, may exist in this woman, but this is not proved, and certainly she is, or was, without evident deformity.

A recapitulation may be pardoned. A primipara, medium sized, well formed, forty-two years old. Liquor amnii escaped twenty-four hours before labor began. Head for several hours, say eight, fixed in the brim. Os rigid, undilated. Presentation vertex, second position. Bladder emptied, and forceps applied. Expulsive pains strong, and traction upon instruments in direction of axis of brim made at same time, the symphysis pubis gave way with a loud crack. Forceps did not break, nor slip, nor twist. Labor rapidly completed.

Woman and child now alive, June 17th. The former can get about the room a little. Child well.

Note. — While it seems very improbable that an operation so serious as symphyseotomy, or the Sigaultian section, should be suggested and performed upon grounds purely theoretical, it (symphyseotomy) would very likely occur to any one meeting a case, like this now cited, where tedious labor, from obstruction about the pelvic brim, terminated *cito et jucunde, si non tuto*, after accidental rupture of the symphysis pubis.

RECENT PROGRESS IN MEDICAL CHEMISTRY.

BY E. S. WOOD, M. D.

URINARY CHEMISTRY.

Alkaptonuria. — Since the publication of Fürbringer's case [1] another has been seen and described by W. Ebstein and J. Müller.[2] It now appears probable that the so-called alkapton is identical with brenzcatechin, a substance contained in the leaves of the *Ampelopsis hederacea*, and known also by the names pyrocatechin, oxyphenic acid, and metadioxybenzine. It can be obtained artificially by the destructive distillation of a number of vegetable extracts, such as catechu, kino, etc.

Ebstein and Müller's case was that of a healthy child, one and a half years old. The urine had all of the characteristics described in the case of Fürbringer, but the substance was isolated, and proved to be brenzcatechin by its crystalline form and all of its chemical reactions. It was isolated from the urine by evaporating the alcoholic extract, and shaking this residue with ether. The ether, upon evaporation, left the brenzcatechin together with hippuric acid in the crystalline form.

Modification of Boettger's Test for Grape Sugar. — Brücke [3] recommends a modification of this test which renders it in many respects preferable to Trommer's test for detecting sugar in the urine. When an alkaline solution of the sulphate of copper is used, as in Trommer's test, other substances besides sugar, uric acid for example, which exist in the urine, cause a reduction of the cupric oxide, when the fluid is boiled, a decolorization taking place, although there is no precipitation of the red oxide in the absence of sugar, unless the amount of the other substances is very large and the boiling is continued for some time. Another objection to Trommer's test is that the precipitation of the red oxide of copper, even when sugar is present in considerable amount, may be prevented by the presence of certain substances in the urine which hold it in solution. Trommer's test is, however, preferable to the bismuth (Boettger's) test as ordinarily employed, on account of the formation of the black sulphide of bismuth, when any organic sulphur compounds, such as albumen, pus, and mucus are present in the urine. This sulphide of bismuth cannot be distinguished by its appearance from metallic bismuth which is formed when sugar is present.

In order to obviate this objection, Brücke recommends the following modification: Instead of using subnitrate of bismuth, the potassio-bismuth iodide, one of the well-known alkaloid reagents, is employed. This reagent may be prepared by dissolving freshly-precipitated sub-

[1] The Journal, January 26, 1876, page 11.

[2] Virchow's Archiv, lxii. 554.

[3] Fresenius's Zeitschrift, 1876, page 100.

nitrate of bismuth in a hot, concentrated solution of iodide of potassium, to which a little hydrochloric acid has been added. The method of performing the test is as follows: Acidulate the urine or other fluid to be tested with hydrochloric acid, being careful not to add too much or too little acid. (Just enough acid should be added to prevent the formation of a precipitate or any turbidity when a drop or two of the reagent is added to an amount of water equal to that of the urine to be used in performing the test.) Then add an excess of the reagent, which precipitates any albuminous substance or sulphide present in the urine, filter, to the filtrate add an excess of liquor potassii, which throws down a white precipitate of the hydrate of bismuth, and boil. If the slightest trace of sugar is present, a black precipitate of metallic bismuth will be formed.

The only precautions to be taken in performing this test are to be sure that the liquid is boiled sufficiently, since in the presence of a small amount of sugar the reduction takes place with some difficulty, and secondly, to avoid the presence of too large an amount of the white hydrate of bismuth before boiling, since it might obscure the detection of a small amount of the black metallic bismuth after boiling. If, by chance, too much is present, it can be allowed to settle, and the supernatant fluid decanted into another test-tube, permitting only a small amount of the precipitate to flow in with it.

The bismuth test for sugar is, without doubt, the most delicate, but it is rarely used on account of the error which may be caused by the presence of a considerable amount of mucus or other albuminous substance in the urine. By the removal of this objection, as in the above process, it is much more delicate and certain than the copper test for detecting the presence of small amounts of grape sugar in the urine.

Acidity of Normal Urine. — Dr. Richard Maly [1] has performed some diffusion experiments to explain in part the acidity of normal urine. He finds that by placing in a diffusion apparatus a mixture of the mono-sodic (acid) and di-sodic (alkaline) phosphates, the acid phosphate passes through the membrane much more rapidly than the alkaline, so that while the fluid within the dialysor has an alkaline reaction, that without has an acid one. This is virtually what takes place in the kidney. The blood contains both of these phosphates of sodium, the di-sodic phosphate being constantly deprived of a part of its sodium by uric, hippuric, lactic, and other acids which are produced by the metamorphosis of the nitrogenous tissues. The mono-sodic phosphate thus formed then readily diffuses from the blood to the urine, and imparts its acid reaction to that fluid, while the principal part of the di-sodic phosphate remains in the blood.

[1] Berichte der deutschen chemischen Gesellschaft, 1876, page 164.

TOXICOLOGY.

Arsenic. — Experiments have been undertaken by M. D. Scolosuboff[1] to determine the localization of arsenic in the different tissues of the body in cases of acute and chronic arsenical poisoning, and also to explain, if possible, the cause of the paralytic phenomena in the chronic form of poisoning, of which two cases are reported in detail.

The method used for determining the amount of arsenic in the different tissues was that recommended by M. A. Gautier,[2] which he considers to be far more reliable and accurate than any other in use up to the present time. The method is so delicate that arsenic could be detected in only two grammes of the spinal cord of an animal poisoned with arsenic. He finds that in acute poisoning in animals the arsenic is localized chiefly in the brain, and in chronic poisoning it concentrates itself in the brain and spinal cord, going afterwards to the liver and muscles, and it is found in these tissues to so great an extent as in the nervous tissues only after it has been removed from the latter by the circulation.

The experiments were made upon dogs and rabbits, and it was found that dogs could take very large amounts of arsenic daily for a long time without producing any abnormal change in the tissues of the liver or muscles, although after death comparatively enormous amounts were found in the brain and spinal cord. In one case of chronic poisoning the brain and cord contained about four times as much arsenic as an equal weight of the liver, and thirty-six times as much as the muscular tissue. In a rabbit 2.15 grammes of the cord gave a distinct arsenical ring, while 38 grammes of the liver and 64 grammes of muscle failed to give any reaction; 100 grammes of the brain yielded 0.0594 gramme of metallic arsenic. In a case of acute poisoning 100 grammes of the brain of a dog, which had been killed by the subcutaneous injection of 0.1 gramme of white arsenic, yielded 0.00117 gramme of metallic arsenic, while 200 grammes of the liver gave so slight a ring that it could not be weighed.

From this fact that the arsenic in cases of poisoning is located chiefly in the nervous tissues, the author considers that the paralyses often noticed in cases of acute and chronic arsenical poisoning are due to changes in the nervous centres, and that we must not look to the muscles for an explanation of the muscular atrophy which is frequently observed. In the same way the vertigo, syncope, and convulsive attacks may be explained, as well as the abnormal sensibility and the mal-nutrition of the skin and tissues as manifested by the œdema, low temperature, and eruption.

[1] Annales d'Hygiène, January, 1876, page 153.

[2] The Journal, January 13, 1876, page 39.

The author reports in detail two cases of arsenical paralysis observed by him in the hospital at Moscow. The important symptoms in these were that the arsenical paralysis attacked exclusively the extremities, especially those parts most distant from the heart; there was alteration of every kind of sensibility, extreme muscular atrophy with total loss or diminution of the reaction of the muscles to both the faradaic and galvanic currents, and alteration in the circulation of the blood and nutrition of the limbs, shown by the diminished temperature, œdema, change in the color of the skin, etc. Even gangrene has been observed in other cases. These symptoms are most marked in the feet and hands, next in the leg and fore-arm, and least in the thigh and arm.

The analogy in the physiological action of arsenic, antimony, and phosphorus has been investigated by Prof. C. Gähtgens,[1] who finds that compounds of both arsenic and antimony have the same physiological action that phosphorus does, namely, a largely increased metamorphosis of the nitrogenous substances in the body, and marked fatty degeneration of many of the organs. The amount of nitrogen in the urine of a dog fed with the arseniate of sodium rose in nine days from 4.4 to 8.7 grammes, the amount of the arseniate given daily varying from 0.10 to 0.25 gramme. In the case of antimony the amount of nitrogen in the urine rose in one case in two days from 3. to 6.9 grammes after the administration of 0.22 gramme of tartar emetic upon the first, and 0.28 gramme on the second day. These three elements, so closely allied chemically, are, therefore, analogous in their physiological action also.

(To be concluded.)

THE JOURNAL OF SOCIAL SCIENCE.[2]

One of the contributors to the journal which lies before us quotes from Mr. J. S. Mill the following definition of social science: "Next after the science of individual man comes the science of man in society, of the actions of collective masses of manhood, and the various phenomena which constitute social life. It is but of yesterday that the conception of a political or social science has existed anywhere but in the mind of here and there an insulated thinker, generally very ill prepared for its realization; though the subject itself has of all others engaged the most general attention, and been a theme of interested and earnest discussions, almost from the beginning of recorded time." According to this comprehensive definition, social science includes within its limits everything which pertains to the development of man in society. And this

[1] Centralblatt für die medicinischen Wissenschaften, 1875, page 529, and 1876, page 322.

[2] *Journal of Social Science, containing the Transactions of the American Association.* Number viii. May, 1876. Published for the American Social Science Association by A. Williams & Co., Boston.

covers so wide a ground that it is difficult to say what it does not include. All matters of sanitary science, all questions of politics, whether municipal or national, the mutual relations of labor and capital, the administration of law, the complex problems of pauperism and crime, the discipline of prisons, the management of hospitals and of schools, are among the subjects which, according to the above definition, are included within the domain of social science. True to this definition, the American Social Science Association declares, in its constitution, that its object is "to aid the development of social science and to guide the public mind to the best practical means of promoting the amendment of laws, the advancement of education, the prevention and repression of crime, the reformation of criminals, and the progress of public morality, the adoption of sanitary regulations, and the diffusion of sound principles on the questions of economy, trade, and finance. It will give attention to pauperism and the topics related thereto, including the responsibility of the well-endowed and successful, the wise and educated, the honest and respectable, for the failures of others." The obvious difficulty in the way of any society or association which undertakes to grapple with so many and such vast problems is the extent, complexity, delicacy, and importance of the subjects which it proposes to investigate. Where so much is undertaken, the work which is done is apt to be superficial. But notwithstanding this inherent and great difficulty we are glad to believe that the American Association, like the British one of the same character, has commenced its work under favorable auspices, and already accomplished no little good.

The varied contents of the present journal reflect the extent of the territory which the association has undertaken to survey, and the multiplicity of its labors. A glance at the contents will justify this remark. The first article, by the Hon. David A. Wells, is a discussion of the influence of the production and distribution of wealth on social development. The subject is treated with the intelligence and clearness which the reputation of its author would lead us to expect. He illustrates and enforces the conclusion, which both common sense and philanthropy indorse, that the interests of labor and capital are not mutually antagonistic, but mutually helpful, and that if no artificial restrictions are laid upon them, their natural development tends to equalize the distribution of wealth throughout the community.

The second article is a report, by Mr. F. B. Sanborn, on the past and present work of social science. It gives a fair account of what the association has done. It is not difficult, however, to trace in the article the ideas of a doctrinaire, rather than those of a scientist or statesman. The third article, by James B. Angell, LL. D., President of the University of Michigan, treats of the progress of international law. The author presents us with a hopeful view of his subject, but fortunately does not indulge in any utopian dreams of the speedy disarmament of the world, and the immediate advent of universal and perpetual peace.

Mr. Dorman B. Eaton relates in the fourth article the history of the experiment of civil service reform in the United States. A sad story it is, for it describes the deliberate abandonment, by a great nation, of a plan which it had inaugurated for the reform of its gravest abuses. The president and both

houses of Congress are shown to have commenced, and then to have renounced, in obedience to the demands of selfish ambition and greed, and with an utter disregard of the best interests of the nation, an attempt at reform which the whole people had regarded with unfeigned satisfaction and equal hope.

The proper treatment of the guilty is the subject of the fifth article, in which its author, the Rev. W. G. Eliot, of St. Louis, insists briefly but clearly upon the necessity of absolute justice and impartiality in the treatment of criminals. It is pleasant to notice that he regards the protection of society as secondary to the comfort and reformation of the criminal. He would have the latter reformed, if possible, but at any rate would take care that society was protected against the wrong-doer.

The sixth article is of greater interest to the medical profession than any of the others. It contains two papers upon the health of the pupils of our common schools: one by Dr. D. F. Lincoln, of Boston, upon the nervous system as affected by school life; and the other by Dr. J. J. Putnam, of Boston, upon gymnastics for schools. Both of these papers are excellent in their way. That of Dr. Lincoln is the longer of the two, and is an intelligent discussion of a sanitary question of vital importance. While it points out the fact that pure mental work, like other occupation, tends to develop and strengthen the human system, it asserts with justness and force that such work should not be insisted upon to the exclusion of the methodical and appropriate exercise of other parts of the body. This is an important truth, and one to which unfortunately very little attention is paid. We trust that the Social Science Association will continue their investigations in this direction until some of the glaring defects in our public-school system are exposed and remedied.

The seventh article is a picture, and not a very agreeable one, of the recent financial policy of the United States as contrasted with that of England. In the eighth article the Hon. Emory Washburn endeavors to define the limitations of judicial power, with a special reference to the Supreme Court of the United States. The important matter of life insurance for the poor is explained by Mr. Elizur Wright in the ninth article. We wish that the author could have treated his subject in a manner somewhat more intelligible to the average American mind. The tenth and last article, by Prof. W. G. Hammond, of the University of Iowa, gives an interesting account of legal education and study of jurisprudence in the West and Northwest. It shows to what an extent the science and practice of the law have been modified in that region by novel conditions and rapid material development. E. H. C.

REPORT FOR SUFFOLK DISTRICT MEDICAL SOCIETY, 1875–76.[1]

A. L. MASON, M. D., REPORTER.

Among "subjects of local interest connected with the practice of medicine" in Suffolk district is the increasing use of antipyretic agents in the treatment of

[1] Read before the Massachusetts Medical Society, June 13, 1876.

fevers, and, as being the most recent remedy of this class, salicylic acid in connection especially with the treatment of typhoid fever and acute articular rheumatism.

The experience of Brand, Jürgensen, Traube, Ziemssen, Liebermeister, and many others, during the past ten years, in Germany, has shown that many of the severer symptoms of typhoid fever may be modified, and the death-rate materially lowered, by the systematic reduction of the bodily temperature by means of cold baths, quinine, alcohol, digitalis, veratrum viride, and finally by salicylic acid. Statistics of many thousand cases appear to show that the mortality from this disease is not more than one half as great under the antipyretic treatment, strictly carried out, as it was formerly under the expectant plan. As an average result we may quote the statistics of Liebermeister. At the hospital at Basle, out of one thousand seven hundred and eighteen cases treated indifferently in former years, twenty-seven per cent. were fatal. Of one thousand one hundred and twenty-one cases treated by the antipyretic method, eight per cent. died. Other observers give even more favorable results. In continued fevers a prolonged elevation of the temperature to an unusually high point is considered to be the chief cause of danger, from the tendency to paralysis of nerve centres and cardiac debility resulting, with risk of fatal syncope, heart clots, or hæmorrhagic infarction in the lungs.

It has been observed that a morning temperature of 106°, even if occurring but once in the course of typhoid fever, has been followed by death in more than one half the cases observed, whereas but about ten per cent. of the cases in which the temperature remained at 104°, or below, died. The treatment in these cases was expectant.[1] As long remissions are considered of favorable import in the ordinary course of typhoid fever, so these remissions are to be artificially sought, and whatever remedies may be used, they are found to be most effectual if brought to bear at the periods of lowest temperature, thus prolonging the natural remissions, and counteracting the tendency to frequent exacerbations.

A cold bath of from ten to twenty minutes' duration at 68°, given as often as the temperature rises to 102° or 102½°, appears to be the most efficient means of abstracting heat, and the gradually cooled bath of Ziemssen is the form which seems most available in this community. Although the enthusiastic predictions of Brand in 1861 have not been fully realized, and there are many cases of typhoid fever in which thorough bathing is impossible or inadmissible, the efficiency of this mode of treatment should not be undervalued. Hæmorrhage from the bowels and feeble action of the heart are contra-indications to the use of cold baths, and there are various other reasons which often make this treatment unavailable with us, so that the simpler plan of reducing the heat-production by means of anti-febrile drugs, with occasional baths, or the use of a cold-water bed, is found to be more generally useful here.

Of such remedies sulphate of quinia is the most trustworthy. Given in doses of from twenty to forty grains, *at once* or within an hour, the temperature may be reduced in most cases several degrees, sometimes to the normal point or below, in the course of twelve hours, slowly rising again. Divided doses

[1] Liebermeister, four hundred cases.

are not to be relied upon to produce the same effect. If the first dose produces little or no fall of temperature, it is to be increased on the following day, but as cinchonism to a disagreeable degree is often present, it is usually desirable to have an interval of forty-eight hours between the doses. If there is vomiting the dose may be repeated, or injected into the rectum, as in some cases of coma, but enough cannot be given subcutaneously. It is usually found that after the first time a diminished dose suffices to produce the desired fall.

With regard to the toxic effects, Liebermeister states that he has given twenty to forty-five grain doses of quinine in one thousand five hundred cases of typhoid fever alone, and in all more than ten thousand single doses, without ever observing any permanent injury attributable to the drug.

Digitalis in ten to twenty grain doses, or a drachm or more of the tincture in divided doses through the day, sometimes acts as a powerful febrifuge when other remedies fail, but it is not entirely safe, and its action is slower. Traube,[1] who investigated this drug most carefully, states that from thirty-six to sixty hours elapse after administrations before the minimum temperature is reached. It is not to be used in cases of cardiac debility, since it is not found to strengthen the heart's action, as it might be supposed to do from the effect on some cases of cardiac disease.

Veratrum viride, or veratria in doses of one twelfth of a grain given every two hours for three or four doses, usually produces a decided fall of temperature, but the nausea, vomiting, and collapse which may follow the use of this drug, as well as that of digitalis, make the most careful watching necessary in both cases. A few fatal instances are reported.

Within the last year salicylic acid has been used to a great extent as an antifebrile remedy, chiefly in Germany, where the results obtained by a large number of careful observers have been in the main unanimous and satisfactory. For internal use the acid must be pure, perfectly white, and almost odorless. The brownish or yellowish tinge which the imperfectly bleached acid has is due to carbolic acid and other impurities, which render it too irritating for internal use. As a febrifuge the dose is from sixty to seventy-five grains given *at once* suspended in water or syrup, or in wafers. This dose may be repeated on the same day if necessary. On account of the insolubility of the acid, the salicylate of soda, which is quite soluble, is found to be a more convenient form for administering the drug, and equally efficacious.

In many hundred cases of acute febrile diseases which are reported, chiefly typhoid fever, acute rheumatism, pneumonia, phthisis, and erysipelas, a decided fall of temperature has been observed in more than ninety per cent, of the cases after from sixty to seventy-five grains of the acid. The remission usually begins within three or four hours of the dose, the temperature falling gradually from one to several degrees, often to the normal point, rising slowly again for twelve to twenty-four hours, when a small dose of thirty to fifty grains often suffices to continue the remission. The susceptibility varies in different persons and at different ages. For children under a year five to seven grains is considered a suitable dose, though much larger amounts seem to be borne. So in adults several drachms have been given daily without injury.

[1] Traube, Gesammelte Beiträge zur Pathologie und Physiologie, ii. 203.

In a moderate case of typhoid fever one dose every day for the first ten days, continued every other day for ten days more, is often sufficient to keep the temperature near the normal point. A dose given at noon will often reduce the evening temperature below the morning's. The action on the bowels is favorable. That is, the tendency to diarrhœa is checked. The pulse often becomes stronger, though the frequency may not be diminished. The effect on the respiration and sensorium is not so beneficial as that resulting from cold baths. In about one half the cases there is profuse perspiration, often beginning within fifteen minutes of the dose, and these cases are observed to fall most in temperature. In about fifteen per cent. of cases vomiting occurs, which sometimes prevents the use of the drug, though this may often be relieved by a few drops of chloroform. The result of injections of salicylic acid into the rectum is not satisfactory.

In forty per cent. of cases, after a dose of from sixty to ninety grains, there is ringing in the ears, occasionally deafness, sometimes dimness of vision, faintness, and headache. In feeble persons collapse may occur, but only one observer[1] mentions a fatal case, which occurred in the fifth week of typhoid fever.

With regard to the action of salicylic acid on the mucous membrane of the stomach and intestines there is a difference of opinion, most autopsies reported showing no lesion or irritation after prolonged use of the drug. Wolffberg (Ziemssen's clinic), however, mentions two autopsies where erosions were found in the mucous membrane of the stomach and duodenum; also in the large intestine of a dog which had had an enema of thirty grains of salicylic acid in about an ounce and a half of water. H. Köhler[2] (Halle), on the other hand, in some twenty post-mortem examinations of animals which had been experimented on with this drug, found no trace of hyperæmia in the stomach, intestines, or kidneys. He also concludes as the result of his experiments that salicylic acid is the most powerful antipyretic of modern therapeutics. Fürbringer and Schültze[3] (Heidelberg) mention three cases of severe dyspnœa, and two cases of acute nephritis, with considerable blood and casts in the urine, which disappeared on disuse of the drug. Cases of inflammation of the mucous membrane of the pharynx after the use of a gargle containing salicylic acid are not rare. Two cases are mentioned where one part to one hundred of glycerine had this effect (Fränkel).

In intermittent fever[4] salicylic acid appears to have a specific effect in mild cases, but is not to be compared with quinine.

The relative antipyretic effect of salicylic acid and quinine was tested by Riegel (Köln),[5] who gave to the *same* patients, at about the same period of typhoid fever, often on the same day, at equal elevations of temperature, thirty grains of quinine and sixty grains of salicylic acid alternately, and found that the latter was slightly more effectual in reducing the temperature, and

[1] Goltdammer, Berliner klinische Wochenschrift, No. 4, 1876.
[2] Centralblatt für die medicinischen Wissenschaften, No. 11, 1876.
[3] Deutsches Archiv, February 25, 1876.
[4] Hiller, Deutsches Archiv, December 10, 1875.
[5] Berliner klinische Wochenschrift, No. 15, 1876.

could be oftener used. The minimum temperature after quinine came somewhat later, and the remissions lasted rather longer.

With regard to the cost of the two drugs here, Squibb's acid, which is better than the imported, is about one fourth the price of sulphate of quinine at present.

Acute Rheumatism. — In forty cases of acute articular rheumatism treated with salicylic acid during the past spring, in Suffolk district, many of which are reported in the JOURNAL, with doses varying from five to fifteen grains every hour, sometimes once in three or four hours, defervescence, with relief from painful symptoms, occurred in eighty-five per cent. of cases after an average period of two and one half days. Fifteen per cent. were not benefited, or could not take it.

In thirty-three cases reported in different journals elsewhere, there was relief after an average use of the drug for thirty-six hours. Relapses often occur, so the acid should be continued in smaller doses into convalescence. The favorable results in Traube's wards, in Berlin, in fourteen cases of rheumatic fever, led to the assertion that by the use of salicylic acid "the duration of acute symptoms can with certainty be limited to a few days." (Stricker.) This does not appear to be universally true, though in many fresh cases coming early under treatment the disease seems to be cut short. This supposed curative power is probably not due to any antiseptic influence, as the same result is obtained by the use of salicylate of soda, which is not antiseptic, except in a slight degree from the small amount of free acid contained in it.

Salicin. — Salicin, the active principle of the willow, which has formerly been in use as an antiperiodic, has lately been advocated as a valuable remedy in rheumatic fever. It has been used since 1874 by Dr. Maclagan [1] (Dundee), on the supposition that rheumatic fever is of malarious origin, in doses of from ten to thirty grains every two or three hours. Several cases are reported by Dr. Maclagan and others in which the disease is said to have been arrested in from twenty-four to forty-eight hours. Salicin is not very soluble, but may be given suspended in water. The advantages claimed over salicylic acid are that it is not impure nor irritating, and may be given in smaller quantity with the same effect. It is said that there are no disagreeable after-effects. The results from the use of this remedy in the Suffolk district are not yet available.

With regard to the efficacy of febrifuges in general it is to be noticed that as the high temperature in fevers is only one, though in some cases the chief, dangerous element in the diseases, so the abstraction of warmth by baths, and the diminished heat-production which follows the use of antifebrile drugs, can only be regarded as bringing the diseases to a certain extent within control in so far as the most exhausting symptom is concerned. It cannot be said that there is any curative effect or curtailment of the natural limits of the fevers in question, though mild cases of typhoid fever sometimes appear to run a shorter course.

The action of salicylic acid in rheumatic fever may perhaps be excepted, as being specific as well as antipyretic.

The administration of calomel as an eliminative during the first week or

[1] London Lancet, March 4 and 11, 1876.

ten days of typhoid fever is also claimed, with reason, as possibly curative. Traube, Wunderlich, Liebermeister, and others have found a transient fall of temperature following doses of from four to ten grains of calomel, repeated perhaps several times in the course of the first week, and in some cases it appears to shorten the disease. Liebermeister found that in two hundred cases treated early with calomel the death-rate was decidedly lower than usual. Whether it is better than other cathartics is not known.

LITERATURE. — Brand, Heilung des Typhus. Berlin, 1861 and 1868. Jürgensen, Behandlung d. Abdom. Typhus mittelst des kalten Wassers. Leipzig, 1866. Ziemssen and Immermann, Kaltwasser-behandlung d. Typhus Abdom. Leipzig, 1870. Liebermeister, Typhoid Fever, in Ziemssen's Cyclopædia, vol. i. Buss, Deutsches Archiv für klinische Medicin, Band xv. Ewald, Practitioner, March, 1876. Binz, Practitioner, April, 1876. Riess, Stricker, Moeli, Goltdammer, Senator, and others, Berliner klinische Wochenschrift, December to April, 1875–76. Jahn, Allgemeine medicinische Central Zeitung, No. 6, 1876. Senator, Centralblatt für die medicinischen Wissenschaften, No. 14, 1876.

PROCEEDINGS OF THE BOSTON SOCIETY FOR MEDICAL OBSERVATION.

O. W. DOE, M. D., SECRETARY.

APRIL 17, 1876. *Masturbation in Women.* — DR. CHADWICK read a paper upon the subject. (Reserved for publication.)

Foreign Body in the Rectum. — DR. J. G. BLAKE showed a fish bone an inch and a quarter in length which he had extracted from the anus of a male patient. Dr. Blake mentioned that some years ago he had shown a similar specimen.

Salicylic Acid in Rheumatism. — DR. BLAKE spoke of the good results he had recently obtained by the use of salicylic acid in rheumatism. One case was that of a little girl relieved in twenty-four hours, who suffered no relapse. Another case was that of an old gentleman who took ten grains every hour for twenty hours, with entire relief, and afterwards had only a slight recurrence of the pain.

DR. EDES said he had met with remarkable success recently in the use of this drug in cases of rheumatism at the City Hospital. He had found that relief followed very soon after commencing the use of remedy, and that very few relapses occurred.

DR. C. P. PUTNAM reported a case of rheumatism with cardiac complications, where two drachms of salicylic acid had been taken during the night with entire relief of pain after sixteen hours. The patient had marked tinnitus aurium, but no vomiting. Dr. Putnam inquired if it had been generally noticed that the temperature fell in about four hours after the cessation of the pain.

DR. BLAKE said he had noticed it in most of his cases.

DR. BOLLES mentioned the case of a patient who, after having suffered four weeks from rheumatism, had obtained marked relief in twenty-four hours by the use of this remedy; another patient, suffering from a relapse, wholly recovered in a few days after commencing the use of the acid.

MAY 1, 1876. *Sanitary Condition of the City Hospital.* — DR. COWLES read a paper upon the subject. (Reserved for publication.)

DR. H. I. BOWDITCH questioned the possibility of making the hospital, even with all the most approved internal arrangements for ventilation, etc., satisfactory in its sanitary condition, on account of its location. He considered both the Massachusetts General Hospital and the City Hospital to be built upon sites radically bad. In any hospital Dr. Bowditch thought it doubtful if good ventilation could be obtained excepting by a large chimney in the centre of the wards, with open fire-places. He would be glad to see all the hospitals removed on to the hills in Roxbury.

DR. C. F. FOLSOM referred to the disadvantage in large hospitals of having the heat driven underground, passing, as it necessarily must, among drains and water-pipes which are continually getting out of order, and so rendering the air impure. He had never yet seen a hospital so constructed as to prevent the odor from the lower wards being noticed in the passage-ways above. He thought even Dr. Kirkbride's insane asylum in Philadelphia, though admirable in its internal sanitary arrangements, would be found to exert an unfavorable influence upon surgical cases. Dr. Folsom added that our experience had been noticed abroad by Virchow and Langenbeck, so that the new hospitals of Berlin, Leipzic, and Dresden are built of one story.

DR. CHADWICK saw no objection against the situation of the two hospitals, provided they were built upon concrete foundation, and referred to the absence of bad odors in residences upon the new land where a better gravel had been used in filling in. Statistics of operations performed at the Massachusetts General Hospital, which he published some years ago, showed better results than had ever been previously published. He thought a change of air in the wards might be obtained by the use of heated chimneys.

DR. FISHER remarked that in the investigations made by him some years ago in insane asylums, he disapproved of the use of vans as a means of ventilation, but thought very favorably of the system of heated chimneys. Dr. Fisher mentioned a case of erysipelas arising from the contamination of air by sewer-gas entering through the cold air box of the furnace, the foundation of which had become undermined.

DR. WEBBER referred to the filling-in about the Massachusetts General Hospital, which he thought could not but exert a very deleterious influence upon its sanitary condition.

DR. CHADWICK remarked that he thought his statistics, previously referred to, disproved the fact of poisonous emanations arising from the soil sufficient to affect the air about the hospital.

Pressed Corned-Beef. — DR. DURGIN showed a specimen of pressed corned-beef which had recently caused severe illness in different families. In one family, consisting of four adults and two children, the beef was partaken of at seven o'clock, and all were seized with violent vomiting within four hours. He had heard of four or five other families similarly affected. The symptoms were severe vomiting followed by diarrhœa, and in some cases gastritis with a burning sensation in œsophagus. In one case there was marked prostration. The urine showed no special change. Dr. Durgin said the beef was cooked,

pressed, and then wrapped in tin-foil, and packed by Messrs. Culver and Smith, in Chicago. It first appeared in the market here six weeks ago. One gentleman who had sold it for three weeks had heard of no ill effects from it until within four days.

Dr. Whittier remarked that the meat had the appearance of having been too freely treated with saltpetre, which may have been the cause of the illness rather than a change in the meat. The symptoms which he had noticed were nausea, vomiting, and purging after from ten to twelve attacks of vomiting, followed by pain and burning sensation in stomach and œsophagus.

Dr. Fitz stated that the disease was not limited to Boston proper, as a case had been met with in West Roxbury.

Dr. Inches alluded to the fact that in summer many butchers add saltpetre to their meat in order to preserve it.

THE AMERICAN MEDICAL ASSOCIATION.

In our comments upon the meeting of a year ago, we expressed a hope that the signs of renewed vigor and the elevated tone of the discussions might promise a greater usefulness in the future. The meeting of the present year can hardly be said to have come up to the expectations then formed. The choice of the place of meeting seems to have exerted an unfavorable influence upon the work of the association, which suffered greatly from the vastly superior attraction of the great exhibition. The attendance at the various sections was, as has been shown by our reports, unusually small; indeed, in some, little or no work of importance was accomplished. This fact augurs ill for the International Congress, which will be held under similar disadvantages. Whether or not the organization of the latter, or the advantage gained by experience, will enable those who have it in charge to conduct the meeting more successfully remains to be seen.

The address of the president, Dr. Sims, was not of as high an order of merit as we had a right to expect from one of his ability, and we regret to say that the topics discussed by him seem to be most unhappily chosen, considering the unusual opportunities which were offered this year for an address creditable to the speaker and the association. The great topics of the day were briefly passed over, and the main portion of the address was devoted to the discussion of two subjects, the code of ethics and the hygienic treatment of syphilis, both of which required great delicacy of handling and the exercise of sound judgment and common sense. We cannot avoid expressing great disappointment at this effort of the distinguished New York surgeon; we feel sure that Massachusetts will be far more ably represented at the next meeting than South Carolina has been in the one which has recently been held.

If we may judge from the many complaints expressed by those who attended the meeting, it was not wholly owing to the presence of the greater attractions that the meeting was so poorly supported by the members of the association. The arrangements of the executive committee appear to have

been wholly inadequate to the occasion. The responsibility for this shortcoming rests with the permanent secretary, at whose door also may be laid the many irregularities in the manner in which the business of the association was conducted. The association evidently felt that its trusty servant had not received sufficient encouragement in the past, and adopted the most shrewd, if not the most just expedient of an increase of salary. We trust there will be a corresponding increase of executive ability.

We regret to find so much to criticise, and fear we shall be classed by the more enthusiastic among the chronic grumblers. We are not without hope, however, for the future, and we doubt not that, under the able leadership of so generally popular a president as Dr. Bowditch, the meeting at Chicago next year will stand out in striking contrast.

THE NEW HAMPSHIRE MEDICAL SOCIETY.

The eighty-sixth annual session was held in Concord, June 20th and 21st, and from the full attendance of both old and new members, as well as the apparent interest taken by every one, it was evident that the association had not lost its original vigorous organization, but is still working for the promotion of science and the elevation of the standard of medicine.

More than one hundred of the profession of the State were present, and the Massachusetts society was ably represented by its ex-president and delegates Perley of Lynn, Holmes of Lexington, and Renton of Boston. Dr. Cotting was elected an honorary member, and responded in a happy manner.

The session on Tuesday was nearly ten hours, with only a short intermission for the anniversary dinner.

The exercises consisted in the reading and discussion of papers, the report of committees, and the report of special cases.

Dr. Child, of Bath, then read a report upon the Practice of Medicine, and Dr. Graves, of Warner, read a paper upon Sanitary Statistics.

Dr. Pray, of Dover, read a full and able report upon Gynæcology.

Dr. Wilkins, of Manchester, followed with a paper upon Puerperal Convulsions.

Dr. Carr, of Goffstown, read a paper upon Epilepsy.

Dr. Kingsbury, of Lyme, from the committee upon necrology, read a biographical notice of the late Dr. Smalley, of Lebanon.

Dr. George A. Crosby, of Manchester, a delegate to the National Medical Association, made a full and interesting report.

Dr. Chase, of Peterborough, read a very exhaustive paper upon Medical Progress in New Hampshire during the past century.

The session opened at eight o'clock on Wednesday morning, with a very full attendance. A paper was read on Typhoid Fever in Phillips Academy, Exeter, by Dr. Hoyt, of Grafton. A paper was also read by Dr. Hill, of Dover. A committee was appointed to appear before the legislature with reference to the enactment of a bill to establish a State Board of Health. Cases were reported by Drs. Webster, Parsons, Parker, Russell, Downs, and Crosby.

That of Dr. Parsons was a case of effusion into the left pleural cavity, with complete compression of the lung, that had been relieved by the use of the aspirator, twenty-five times in the past three months, about six gallons of fluid having been removed in that time. The patient appeared before the society for examination.

Considerable general business was transacted.

A delegation of members went to Pittsfield to attend the funeral of the late Dr. Richard P. J. Tenney, ex-president of the society.

The following officers were elected: —

President, A. B. Crosby, Hanover; Vice-President, L. M. Knight, Franklin; Secretary, G. P. Conn, Concord; Treasurer, Thomas Wheat, Manchester; Anniversary Chairman, James H. Wheeler, Dover; Board of Censors, W. D. Chase, Peterborough; C. H. Boynton, Lisbon; G. B. Twitchell, Keene; N. G. Brooks, Charlestown; C. F. Kingsbury, Lyme; G. E. Hersey, Manchester; E. F. McQuesten, Nashua; C. P. Frost, Hanover; John W. Parsons, Portsmouth; S. W. Roberts, Wakefield.

MEDICAL NOTES.

— We are requested by the committee on the Boylston Medical Prizes to ask the author of a dissertation on Hospital Construction bearing the motto, "Mille mali species, mille salutis erunt," to communicate with the secretary. The committee considered this article an exceedingly valuable contribution to the subject, and regret that their ignorance of the writer's name prevents them from urging upon him personally its publication.

— Ulcer of the frænum linguæ as a new symptom of whooping-cough is described in a communication by Thomas Morton, M. D., to *The British Medical Journal* of June 10, 1876. For the purpose of ascertaining whether ulcers of the frænum of the tongue might not be present in a variety of conditions, Dr. Morton examined one hundred consecutive cases, most of them in children, of a variety of diseases, and in only two cases did he find an ulcer of the frænum, while in both there were suspicions of whooping-cough. He then examined eighty-one cases of whooping-cough, and found well-marked ulcers in thirty-three, or nearly forty-one per cent. Of forty-one cases which he was able to observe pretty continuously, an ulcer was found in twenty-five, or sixty-one per cent. He thinks it may be regarded as proved that a small white ulcer of the frænum linguæ, either round or forming a transverse furrow, is a symptom characteristic of whooping-cough, which is observed in fully half the cases, being found most frequently during the third, fourth, and fifth weeks, but occasionally appearing as early as the first or as late as the eighth week.

— There is no doubt but that etherization is slowly gaining ground in Europe, and that the day is approaching when chloroformic anæsthesia will be a thing of the past. Meanwhile it is interesting to note the important defections which are continually taking place from the ranks of the chloroformists. Mr. Pallock, of St. George's Hospital, is known to be a most ardent advocate of etherization. Sir James Paget, writing in 1875, says, "For the last two years I have used only sulphuric ether, or, for short operations, nitrous oxide

gas or ether spray." Sir Henry Thompson, who used generally to dispense with anæsthesia during lithotrity, now has his patients etherized by Clover's system, which consists in the use of nitrous oxide, followed by ether. "The rapidity and greater safety of the process," he says, "as compared with that by chloroform, together with the freedom from subsequent sickness usually attained (the latter an advantage of no slight value), have influenced my practice, and I now make anæsthesia the rule and not the exception." Professor Vulpian, of Paris, the eminent experimental physiologist, prefers ether for anæsthesia in vivisection, no doubt from motives of economy, as well as for reasons of a more scientific nature. Speaking of the sudden death of a dog which had been chloroformed for purposes of experiment during a lecture, he says, "This accident is so liable to occur when chloroform is used to produce insensibility in animals about to be experimented upon, that we almost always use sulphuric ether, of which the action is much less dangerous, and less treacherous."

— The *Index* is a weekly journal devoted to free religion. Whatever difference of opinion may exist concerning the free religious movement, the course of the *Index* is, on one point which relates to medicine, most commendable and unselfish. We refer to its refusal to admit quack advertisements to its columns, a refusal which sectarian religious journals can rarely be credited with. In this connection we copy the following from the *Index* of June 1st: —

"The New York *Sun* is sometimes reckless and over-sharp, but in this paragraph it flies like an arrow to its mark: 'Advertisements of patent medicines furnish support to many so-called religious papers. Not a few of them would perish but for the aid they receive from medical quackery. Hence the importance of the movement in the Baltimore Conference to exclude these advertisements from the organs of the Methodist denomination. The editors and the quacks can make a strong argument for their union. The editors may go on arguing that they are enabled to propagate religion with the resources of quackery; and the quacks can show that the so-called religious press is the best field for their operations, the place where they can put their money so as to do the most good. Of the quacks who thus advertise, there are some whose medicines are injurious to the men, women, and children who use them; and we often see, in so-called religious papers, quack-medicine advertisements which are an outrage upon decency. If religion be a matter of truth, how can its organs sustain themselves by such falsehoods?'"

— The transactions of the Medical Society of the College of Physicians, published in *The Dublin Journal of Medical Science* for April, 1876, contain an account of a case of idiopathic glossitis, by Henry G. Croly, F. R. C. S. I. Mr. Croly gave an account of his experience of glossitis, a subject to which his attention had been given during the last twenty years. He referred to the pamphlet he had published on the disease, in which he had recorded the details of thirteen cases of acute inflammation of the tongue that had been under his observation in hospital practice, and given the treatment he had resorted to therein. He would now bring under the notice of the society the case of a horse-shoer, aged twenty-two, who was in his usual good health until the day previous to his consulting Mr. Croly, when he felt a soreness in his tongue. He had been exposed to great heat and chills. The left half of his tongue was swol-

len and exquisitely painful ; tender and hard to the touch ; saliva dribbled from his mouth, and his articulation was characteristic of the disease from which he was suffering. He had some dyspnœa and considerable dysphagia. The tonsils were, as is usual, quite unaffected. Mr. Croly commenced his treatment by purgatives; he then dried the tongue, and having placed milk and sugar on it, applied a leech, but the leech would not take. The tongue being still considerably swollen, he made a longitudinal incision into it with a sharp-pointed bistoury. The hæmorrhage was moderate, but there was a considerable flow of serous fluid, followed by immediate relief. In making an incision of this sort there was an important consideration to be attended to. When only half of the tongue was inflamed, it became turned round; and if while it was in that position an incision were made parallel to the raphe, there would be a danger of wounding some of the vessels. This could be avoided by turning the edge of the bistoury slightly outwards. On the other hand, when the whole tongue was inflamed, the incision should be made perfectly straight. *Transverse* incisions were made in cases reported by Dr. Graves and Dr. Neligan, a practice which would not be countenanced by any surgeon of the present day. It yielded rapidly to active treatment, including purgatives, and free incisions. It began, he believed, not at the tip, but at the base of the tongue, and spread forward ; and pressure upon the tongue gave the most intense pain. In making the incision it was necessary to get the bistoury well back. He made it a rule always to puncture the sublingual spaces near the teeth. Mr. Croly said that though idiopathic glossitis was obviously not a very common disease, still it was not so rare as some persons supposed.

MASSACHUSETTS GENERAL HOSPITAL.

SURGICAL CLINIC.

[SERVICE OF DR. GEORGE H. GAY.]

Cases of Injury from Falls. — Case I. March 27th, Daniel McD., a carpenter, thirty years of age, fell from a staging, striking upon the ground thirty feet below. One hour after the accident he was brought to the hospital. At that time he was unconscious and could not be aroused ; his pupils were equally dilated, and responded but feebly to light ; the left leg contracted under irritation, but the right did not. There was no external injury ; the pulse was 72, and of feeble character.

March 30th. Power was regained over the right leg.

For nearly two weeks the patient continued in the same condition, complaining of nothing but headache. His pulse at times fell to 44 beats in the minute, and his temperature to 96.4° F.

April 13th. The pulse rose to 90 and the temperature to 99° ; brief periods of apparent sanity were first noticed.

From that time steady improvement took place, and in May he went home, at his own desire. His mind then seemed somewhat impaired, and mental exertion brought on headache.

Case II. April 22d, Pat H., a stout Irishman, thirty-one years old, fell,

feet first, from the top to the bottom of an empty bin in a grain elevator, a distance of sixty feet. These bins are about ten feet square at the top, and thirteen feet from the bottom the sides begin to incline towards the centre, forming a hopper, the hard pine floor of which is only about a foot square. On the floor of one of these bins the patient was picked up in an insensible condition. Two hours after the accident he was brought to the hospital. Great pain was complained of in the chest and left hip. The sixth, seventh, and eighth ribs on the left side were broken near their angles, and there was slight emphysema at the points of fracture; the left hip was bruised and the left foot was swollen and disfigured, the lower tarsal bones seeming to have been driven upward; there was no crepitus, and the shape of the foot could not be restored. This patient had severe pain for several days, but no cerebral symptoms manifested themselves and he steadily improved.

Case III. April 27th, Samuel U. fell from a staging, striking upon a rock ten feet below, which lacerated the scalp and denuded the bone in the right frontal region; he was stunned for the moment, but was able to walk home. He entered the hospital a week later with a denuded spot as large as a silver half-dollar above the right eye, and two of the lower left ribs were found to be broken. The bone became covered with granulations and did not exfoliate, and the patient rapidly recovered without any symptoms of brain disturbance.

Case IV. June 13th, Calvin L., a sailor, seventeen years old, fell a distance of one hundred feet from the topmast of a vessel, striking first the cross-trees and then the deck. An hour and a half after the accident he was brought to the hospital. The pulse was then imperceptible at the wrist; there was great restlessness, but the mental functions seemed unimpaired; a marked irregularity was noticed in the spine in the lower dorsal region, attended with complete paralysis of the inferior extremities. Death occurred within two hours after entrance.

An autopsy showed fracture of the spleen and ribs immediately over it, and a fracture of the body of the twelfth dorsal vertebra and its right transverse process; the body of the vertebra was very much comminuted, and its inferior portion had lacerated the spinal cord. There had been considerable hæmorrhage from the spleen; the left shoulder and left side of the head were considerably bruised.

Case V. June 16th, Geo. McV., eighteen months old, fell from a second-story window, his head striking upon a brick sidewalk fifteen feet below. An hour and a half after the accident he was brought to the hospital. The only injury detected was a large ecchymosis on the left side of the head, with a small abrasion over the occipito-mastoid suture; the pupils were normal and there was no paralysis. But little pain was complained of, and in a day or two the child appeared as bright as ever, and at the end of a week there only remained a fluctuating swelling above the left ear.

The first case was a full-grown man, whose completely ossified frame and contracted muscles transmitted a shock but little broken to the brain, producing concussion. The last case was a baby whose flaccid muscles and whose cartilages yielded to the blow, and the brain was saved. In the other cases the bones which were the objects of violence gave way, and the force was thus expended, which would otherwise have been transmitted to the brain.

J. E. Garland.

LETTER FROM FLORENCE.

Messrs. Editors, — One marked difference between the human and brute creation is the strikingly greater tenacity of life possessed by the latter. The lower one arrives in the scale, the greater are the powers of resistance and reproduction; and this depends not only upon their organization as animals, but is also governed to a great extent by their habits and surroundings; there is greater vitality, greater power of endurance, in the wild than in the domesticated animal. This is even more strongly marked among the different members of the human race: the simple life and habits of the Hindoo free from strain or excitement, enable him to support surgical operations and accidents under which the American or European, with his artificial mode of existence, coupled with its wear and tear, would inevitably succumb. Certain conditions which in a primitive state of society are purely physiological become under the influence of modern civilization pathological, such, for instance, as pregnancy and parturition; among the lower orders, those living principally in the open air, without having contracted the habits and vices of large cities, pass through the periods of gestation and delivery not only without inconvenience or danger, but with a recovery so rapid as almost to defy belief. I was some years ago informed on indisputable authority, by one connected with a maternity hospital, that there was a class of women in and about Pisa who at certain seasons of the year passed a great part of their time in the woods, collecting acorns for their hogs and broken branches for winter fuel. These women, when in an advanced stage of pregnancy, about the period of their expected delivery, always sallied from home provided with tape and scissors. When the critical moment arrived, they performed on themselves the office of midwife, and returned to the domestic hearth with their offspring enveloped in their aprons. Even in England it is a common thing to see women at the washing tub who three or four days before have added to the population. What would the dainty lady of fashion, the victim of nervous whims and flurries, with her smelling-bottle by day and her chloral by night, say to this? These are facts so well known and admitted that it would almost appear superfluous recapitulating them, were it not that the case which they are intended to introduce is so extraordinary, in fact unique in the annals of surgery, that it far eclipses the performances of the Pisan matrons; without further prelude I will proceed with my history.

N. N., native of Corsica, aged sixty, general appearance showing great emaciation; color of a dirty yellow, suggestive of malignant disease; has generally been healthy; had never to his knowledge suffered from any serious abdominal affection; no history of cancer in the family; has been ill a twelvemonth, suffering from constipation and painful defæcation. Gradually he became conscious of some mechanical obstruction situate at the orifice of the rectum, and then of a protrusion, which sometimes he could himself replace, at other times was constrained to seek medical aid for its reposition. The constipation was temporarily relieved by purgatives, which produced discharges of scybala, blood, and mucus, followed by the appearance of a tumor after

considerable straining ; occasionally there was also oozing of a sero-mucous fluid. The more general opinion among his medical advisers was that it was a tumor proceeding from the walls of the rectum, probably of a cancerous character. The pain attending defæcation had become so severe that he could with difficulty be persuaded to take nourishment. An operation was proposed, but objected to, and he determined to proceed to Florence for further advice.

On the first examination a tumor was discovered blocking up the rectum, which the patient could generally protrude, but which he failed to do on the present occasion. A dose of castor-oil was given, which effected this object; it was then discovered to be movable, showing that it was unconnected with the deeper structures of the rectum. The finger could pass freely round its circumference, where there was space for the escape of the fæces. The surface of the tumor was irregular, from the presence of vegetations, and no aperture of any kind was detected ; it was considered to be a cancroid, and later a polypus. During a subsequent examination a portion was detached from the surface, and on submitting it to the microscope it was ascertained or rather held to be a papilloma, but the surgeon was unconvinced, and adhered to his first impression that it was a polypus. The general appearance of the patient was anæmic, from loss of blood, suffering, and defective nourishment. After sundry consultations an operation was proposed as the only chance of salvation, and agreed to by the sufferer. A full dose of castor oil was administered, which produced a copious discharge of fæcal matter and complete protrusion of the tumor. The patient was placed on an operating table. On applying a wire ligature, to prevent hæmorrhage, it was found that the point of origin of the polypus could not be reached, as the peduncle was evidently a long one. It was, however, applied as high up as practicable. The extreme ends of the metallic ligature were securely fixed to the handles of the instrument ; the tumor was drawn down, and excised by the galvano-caustic wire at a short distance from the point of ligature. This apparently simple operation was followed by unusual results, namely, shock, with its concomitant symptoms. The patient was hurried to bed, and the surgeon was surprised to find that his wire ligatures had almost vanished, that the handle of the instrument alone prevented their disappearance into the cavity of the abdomen. The tumor was now examined, and it was soon discovered, to the general astonishment and consternation, that the tumor was *not* a cancroid, *not* a polypus, *not* a papilloma, but the whole of the ileo-cæcal valve, with a portion of the ileum, in a considerably hypertrophied state, measuring, in its invaginated, telescopic condition, ten centimetres. The wires were now inclosed in glass tubes, and the patient left in repose, with a prognosis which may easily be imagined. After fourteen hours evidences of strangulation manifested themselves, and it was determined to slacken the ligature, which was followed by a copious discharge of serous fluid, and a large quantity of fæcal matter, blood, and mucus. In a few hours there was a subsidence of all untoward symptoms. In a few days the bowels were opened naturally and regularly, which had not occurred for many months, and in a fortnight the patient announced and carried out his intention of returning to his native hills, where he now remains in perfect health.

It would be useless to speculate as to nature's mode of proceeding in the

readjustment of this intestinal hiatus, but such are the facts. A well-known lecturer on anatomy and physiology in London used to say that the only use he could see in the appendix vermiformis was to catch cherry-stones, and that we should be much better without it; but he little thought a man could get on so satisfactorily without his ileo-cæcal valve and appendages. The preparation may be seen at the pathological museum of the Florence hospital. On some future occasion I will send you a history of the expulsion of one metre and thirty centimetres of small intestine, following intussusception, and the patient does not seem to miss it.

WILLIAM WILSON, M. D.

33 VIA SANTO SPIRITO, FLORENCE, *May* 28, 1876.

DR. JOHN OSGOOD STONE died suddenly in New York on the 7th of June. Son of Robert Stone, he was born in Salem, Mass., in 1813, graduated at Harvard College with honors in 1833, receiving his medical diploma from the same institution in 1836. After spending the two subsequent years in the hospitals of Paris, he settled as practitioner of medicine in the city of New York in 1838, where his talents and force of character soon gained him the foremost position in his profession.

Dr. Stone was vice-president of the New York Academy of Medicine, surgeon to Bellevue Hospital for several years, and also served on the medical board of health for four years. His contributions to military surgery, written at an early period of his medical career, were received with much commendation, both at home and abroad. He had also at different periods of his life collected together valuable materials for scientific publications.

Ever earnest in his professional work and unsparing alike in devotion and in sympathy, his presence in the sick-room was always a blessing and comfort. From many stricken city homes, where Dr. Stone's name was ever a household word, come to his bereaved family grateful tributes to the memory of one who, with unswerving fidelity, ever followed in the footsteps of the Great Physician. S. S. K.

NORFOLK DISTRICT MEDICAL SOCIETY. — The regular meeting of the society will be held at the Evans House, Boston, Tuesday, July 11th, at eleven o'clock. Papers, communications, etc.: Dr. D. B. Van Slyck, Management of the Obstetrical Forceps. Dr. R. T. Edes, Intracranial Syphilis. Dr. J. A. Gordon, Suppurative Inflammation of the Symphysis Pubis. Dr. G. K. Sabine, "Lister's Dressing." Dr. H. A. Martin, Tracheotomy without Tubes. Exhibition of pathological specimens. Dinner at two P. M.

A. H. NICHOLS, *Secretary.*

BOOKS AND PAMPHLETS RECEIVED. — On a New Meteorological Instrument. By J. N. Osborne, of Washington, D. C. (From the Proceedings of the American Association for the Advancement of Science, Detroit Meeting, August, 1875.)

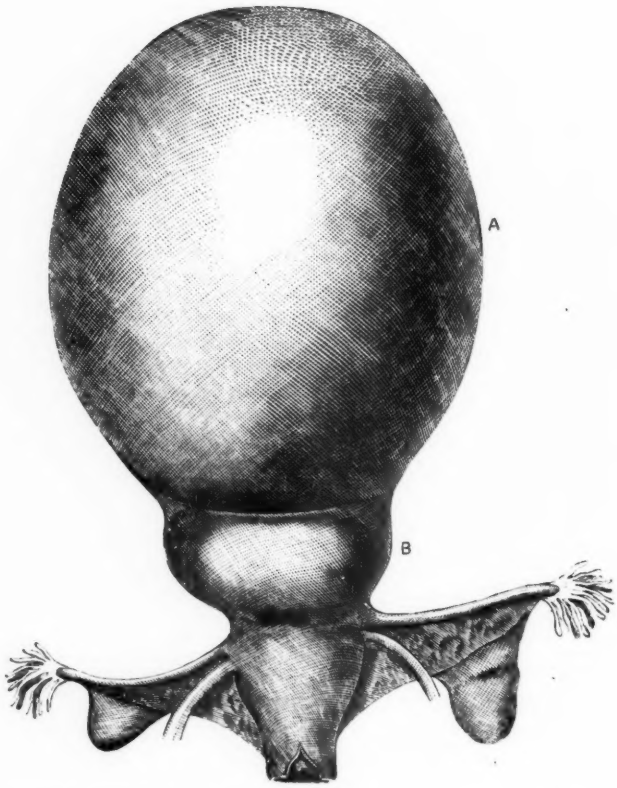
Lectures on Fever. By William Stokes, M. D. Edited by John William Moore, M. D. Philadelphia: Henry C. Lea. 1876.

Mémoirs sur la Galvano-Caustique Thermique. Par le Docteur A. Amussat, Fils. Paris: Libraire de Gerneer Baillière. 1876.

Des Sondes a demeure et du Conducteur en Baleine. Par le Docteur A. Amussat.

Bachelder's Popular Resorts and How to Reach Them. Illustrated. Tourists, Edition. Fourth Edition.

Cyclopædia of the Practice of Medicine. Edited by Dr. H. von Ziemssen. Vol. XI. Diseases of the Peripheral Cerebro-Spinal Nerves. New York: William Wood & Co. 1876.



FIBRO-CYSTIC GROWTH INVOLVING THE UTERUS.

A, Cyst.

B, Uterus.

There were small cysts in both ovaries.